

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (Currently Amended): In an electronic device comprising at least one dielectric layer, the improvement wherein said dielectric layer is formed from a composition comprising:
component A: at least one organic amine derivative, which is capable of forming a crosslinked polymer with itself and/or with at least one multifunctional compound, and/or its crosslinked polymer product obtainable by crosslinking said amine derivative with itself or with at least one multifunctional compound,

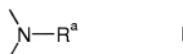
component B: at least one multifunctional organic compound with at least two functional groups selected from -OH, -NH₂, -COOH, and their reactive derivatives, capable of reacting with at least one component A to form a crosslinked polymer, and

optionally component C: at least one initiator for the polymerization of component A or components A and B,

wherein said composition contains at least 75% by weight of component A based on the total weight of components A, B, and C

wherein the total amount of organic amine derivatives in said composition is at least 75% by weight, based on the total weight of (a) organic amine derivatives, (b) multifunctional organic compounds with at least two functional groups selected from -OH, -NH₂, -COOH, and their reactive derivatives, and (c) initiators.

2. (Previously Presented): A device according to claim 1, wherein said at least one amine derivative comprises two or more identical or different groups of the subformula I



wherein

R^a is H, -(CR'R''), -CO]-R'', -[(CR'R'')_n-O-]_l-R'' or -(CR'R'')_n-NHZ,

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R', R'', R''' are independently of each other H, an alkyl group with 1 to 12 C-atoms which may be substituted by halogen, or an alkenyl group with 2 to 12 C-atoms which may be substituted by halogen,

Z is H or a protective group,

v is 0 or greater or equal to 1, and

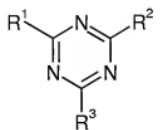
r is greater or equal to 1, wherein if v is 0, then r is 1.

3. (Original): A device according to claim 2, wherein v is greater or equal to 1.

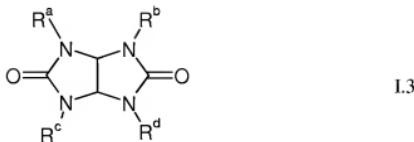
4. (Previously Presented): A device according to claim 2, wherein at least one of the groups R^a is an alkyl group with 1 to 12 C-atoms which may be substituted by halogen, or an alkenyl group with 2 to 12 C-atoms which may be substituted by halogen.

5. (Previously Presented): A device according to claim 2, wherein at least one of the groups R^a is -[(CR'R'')_v-O-]_r-H.

6. (Previously Presented): A device according to claim 1, wherein said organic amine derivatives are selected from formulae I.1 to I.3

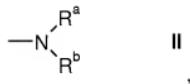


I.1



wherein

$\text{R}^1, \text{R}^2, \text{R}^3$ are independently of each other a group of formula II



,

$\text{R}^{\text{a}}, \text{R}^{\text{b}}$,

$\text{R}^{\text{c}}, \text{R}^{\text{d}}$ are independently of each other H, $-[(\text{CR}'\text{R}'')_{\text{v}}-\text{CO}]_{\text{r}}-\text{R}'''$, $-[(\text{CR}'\text{R}'')_{\text{v}}-\text{O}-]_{\text{r}}-\text{R}'''$ or $-(\text{CR}'\text{R}'')_{\text{v}}-\text{NHZ}$,

$\text{R}', \text{R}'', \text{R}'''$ are independently of each other H, an alkyl group with 1 to 12 C-atoms which may be substituted by halogen, or an alkenyl group with 2 to 12 C-atoms which may be substituted by halogen,

Z is H or a protective group,

v is 0 or greater or equal to 1,

r is greater or equal to 1, wherein if v is 0, then r is 1,

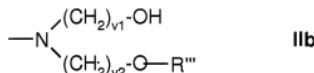
W is O or S, and

R^3 may, alternatively, be an alkyl, cycloalkyl, aryl or alkylaryl group, which in each case is optionally substituted by halogen.

7. (Original): A device according to claim 6, wherein v is greater than or equal to 1.

8. (Previously Presented): A device according to claim 6, wherein in formulae I.1 to I.3 at least one of the groups R^1 , R^2 , R^3 and/or of the groups R^a , R^b , R^c , R^d comprises an alkyl group with 1 to 12 C-atoms which may be substituted by halogen, or an alkenyl group with 2 to 12 C-atoms which may be substituted by halogen.

9. (Previously Presented): A device according to claim 6, wherein said at least one organic amine derivatives is selected from formulae I.1 and I.2, and one, two or three of the groups R^1 , R^2 , R^3 are independently of each other a group of subformula IIb



wherein

v_1 is 0, 1, 2, 3 or 4,

v_2 is 1, 2, 3 or 4, and

R''' is H or an alkyl group with 1 to 12 C-atoms, wherein one, more or all H-atoms may be substituted by halogen.

10. (Currently Amended): A polymerizable amine mixture comprising:
75 to 99.5 % by weight of component A,
0 to 25 % by weight of component B, and
0 to 10 % by weight of component C,
wherein the weight percentages are based on the total weight of components A, B, and C, and
component A is at least one organic amine derivative, which is capable of forming a

crosslinked polymer with itself and/or with at least one multifunctional compound, wherein said at least one organic amine derivative comprises two or more identical or different groups of the subformula I



wherein

R^{a} is H, $-[(\text{CR}'\text{R}'')_{\text{v}}-\text{CO}]_{\text{r}}\text{R}''$, $-[(\text{CR}'\text{R}'')_{\text{v}}-\text{O}-]_{\text{r}}\text{R}''$ or $-(\text{CR}'\text{R}'')_{\text{v}}-\text{NHZ}$,

R' , R'' , R''' are independently of each other H, an alkyl group with 1 to 12 C-atoms which may be substituted by halogen, or an alkenyl group with 2 to 12 C-atoms which may be substituted by halogen,

Z is H or a protective group,

v is 0 or greater or equal to 1, and

r is greater or equal to 1, wherein when v is 0, then r is 1;

component B is at least one multifunctional organic compound with at least two functional groups selected from -OH, -NH₂, -COOH, and their reactive derivatives, capable of reacting with said at least one organic amine derivative of component A to form a crosslinked polymer; and

component C is at least one initiator for the polymerization of component A or components A and B.

11. (Currently Amended): A polymerizable amine mixture according to claim 10, wherein said mixture contains 0.5 to 25 % by weight of component B, based on the total weight of components A, B, and C.

12. (Previously Presented): A polymerizable amine mixture according to claim 10, further comprising component D in an amount of from 0.5 to 50000 % by weight related to the total weight of components A, B and C, wherein component D is a solvent, or a mixture of two or more solvents, capable of dissolving components A, B and C.

13. (Previously Presented): A polymerizable amine mixture according to claim 10, further comprising superfine ceramic particles as a component F.

14. (Previously Presented): A polymerizable amine mixture according to claim 13, wherein the superfine ceramic particles of component F are contained in the polymerizable amine mixture in an amount of from 0 to 80 % by weight, related to the total weight of components A, B and C.

15. (Cancelled):

16. (Cancelled):

17. (Previously Presented): An amine polymer material obtainable by polymerization of a polymerizable amine mixture according to claim 10.

18. (Withdrawn): A process for the manufacture of a dielectric layer of an electronic device, said process comprising:

- a) preparing a substrate which optionally comprises one or more layers or patterns of materials with insulating, semiconductive, conductive, electronic and/or photonic functionalities,
- b) forming a thin layer of a polymerizable amine mixture comprising one or more organic amine derivatives as defined in claim 1 onto said substrate or onto defined regions of said substrate, and
- c) initiating the polymerization of the polymerizable amine mixture of said thin layer.

19. (Withdrawn; Currently Amended): A process according to claim 18, wherein said polymerizable amine mixture is a polymerizable amine mixture comprising:

75 to 99.5 % by weight of component A,
0 to 25 % by weight of component B, and
0 to 10 % by weight of component C,

wherein the weight percentages are based on the total weight of components A, B, and C, and

component A is at least one organic amine derivative, which is capable of forming a crosslinked polymer with itself and/or with at least one multifunctional compound, wherein said at least one organic amine derivative comprises two or more identical or different groups of the subformula I



wherein

R^a is H, $-[(CR'R'')_v-CO]_r-R''$, $-[(CR'R'')_v-O]_r-R''$ or
 $-(CR'R'')_v-NHZ$,

R' , R'' , R''' are independently of each other H, an alkyl group with 1 to 12 C-atoms which may be substituted by halogen, or an alkenyl group with 2 to 12 C-atoms which may be substituted by halogen,

Z is H or a protective group,

v is 0 or greater or equal to 1, and

r is greater or equal to 1, wherein when v is 0, then r is 1;

component B is at least one multifunctional compound, capable of reacting with at least one organic amine derivative of component A to form a crosslinked polymer; and

component C is at least one initiator for the polymerization of component A or components A and B.

20. (Withdrawn): An electronic device obtainable by the process according to claim 18.

21. (Original): In an electronic device comprising a dielectric, the improvement wherein said dielectric comprises an amine polymer material according to claim 17.

22. (Previously Presented): A device according to claim 2, wherein Z is H, formyl, tosyl, acetyl, trifluoroacetyl, methoxy, ethoxy, tert.-butoxy, cyclopentyloxy, phenoxy carbonyl, carbobenzyloxy, or p-nitrobenzyloxy.

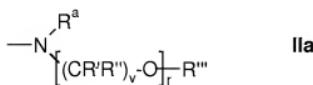
23. (Previously Presented): A device according to claim 2, wherein v is 1 to 6.

24. (Previously Presented): A device according to claim 2, wherein r is 1 to 4.

25. (Previously Presented): A device according to claim 22, wherein v is 1 to 6 and r is 1 to 4.

26. (Previously Presented): A device according to claim 6, wherein Z is H, formyl, tosyl, acetyl, trifluoroacetyl, methoxy, ethoxy, tert.-butoxy, cyclopentyloxy, phenoxy carbonyl, carbobenzyloxy, or p-nitrobenzyloxy, v is 1 to 6, and r is 1 to 4.

27. (Previously Presented): A device according to claim 6, wherein said amine derivative is selected from formula I.1 and 1.2, and one, two or three of the groups R¹, R², R³ are a group of formula IIa



28. (Currently Amended): A polymerizable amine mixture according to claim 10-46, wherein component B is selected from alkanedioles with 2 to 12 C-atoms, polyhydroxyalkyl

(meth)acrylates, poly (meth)acrylic acids, polyols, and optionally substituted phenol formaldehyde condensation copolymers.

29. (Currently Amended): A polymerizable amine mixture according to claim 10 46, wherein component B is selected from 1,4-butanediol, polyhydroxyethyl methacrylate, polyacrylic acid, polyurethane polyols, polyethylene imine, polyvinyl phenol, and cresol formaldehyde condensation copolymer.

30. (Previously Presented): A polymerizable amine mixture according to claim 10, wherein component C is selected from acids or bases and compounds which set free an acid or a base.

31. (Previously Presented): A polymerizable amine mixture according to claim 30, wherein component C is selected from diaryliodonium salts, triarylsulfonium salts, s-triazines, sulphonic acids, and thermal acids.

32. (Currently Amended): A polymerizable amine mixture according to claim 30, wherein component C is ~~selected from~~ para-toluene sulphonic acid or ~~and~~ ammonium nitrate.

33. (Previously Presented): A polymerizable amine mixture according to claim 12, wherein component (D) is selected from aliphatic ketones, cycloaliphatic ketones, alcohols, ethers, and mixtures thereof.

34. (Currently Amended): A polymerizable amine mixture according to claim 12, wherein component (D) is selected from cyclohexanone, butanone, isopropyl alcohol, butanol, ethyl lactate, propylene glycol methyl ether acetate (PGMEA), propylene glycol methoxy propanol (PGME), and mixtures thereof.

35. (Previously Presented): A polymerizable amine mixture according to claim 10, further comprising at least one surfactant as a component (E).

36. (Currently Amended): A polymerizable amine mixture according to claim 35, wherein component (E) is selected from non-ionic surfactants, polyoxyethylene, polyols, siloxanes, pluronics and tweens.

37. (Previously Presented): A polymerizable amine mixture according to claim 35, wherein component (E) is selected from polyoxyethylene, polyols, siloxanes, pluronics and tweens.

38. (Currently Amended): A polymerizable amine mixture according to claim 10, wherein the amount of component (B) is at least 2 % by weight, based on the total weight of components A, B, and C.

39. (Currently Amended): A polymerizable amine mixture according to claim 10, wherein the amount of component (C) is at least 0.5 % by weight, based on the total weight of components A, B, and C.

40. (Currently Amended): A polymerizable amine mixture according to claim 10, wherein the amount of component (A) is at most 98 % by weight, the amount of component (B) is at most 25 % by weight, and the amount of component (C) is at most 5 % by weight, in each case based on the total weight of components A, B, and C.

41. (Previously Presented): A device according to claim 1, wherein said dielectric layer has a thickness of 0.01 to 50 µm.

42. (Previously Presented): A device according to claim 1, wherein said dielectric layer has a dielectric constant which is greater or equal 4.

43. (Previously Presented): A device according to claim 1, wherein said device is a microelectronic device and/or organic electronic device or components, or is selected from resistors, diodes, transistors, integrated circuits, light emitting diodes, electrooptical displays, thin film transistors, OFETs, OLEDs, large area driving circuits for displays, LCDs, photovoltaic applications, low-cost memory devices, smart cards, electronic luggage tags, ID cards, credit cards and tickets.

44. (Previously Presented): A polymerizable amine mixture according to claim 10, wherein said at least one multifunctional organic compound of component B is selected from aliphatic dioles, cycloaliphatic dioles, aromatic dioles, polyoles, diacids, polyacids, diamines, polyamines, and their reactive derivatives.

45. (Currently Amended): A polymerizable amine mixture according to claim 10, wherein said mixture contains 0 % by weight of component B, based on the total weight of components A, B, and C.

46. (New): In an electronic device comprising at least one dielectric layer, the improvement wherein said dielectric layer is formed from a composition consisting of:

component A: at least one organic amine derivative, which is capable of forming a crosslinked polymer with itself and/or with at least one multifunctional compound, and/or its crosslinked polymer product obtainable by crosslinking said amine derivative with itself or with at least one multifunctional compound,

component B: at least one multifunctional organic compound with at least two functional groups selected from -OH, -NH₂, -COOH, and their reactive derivatives, capable of reacting with at least one component A to form a crosslinked polymer, and

optionally component C: at least one initiator for the polymerization of component A or components A and B,

optionally component D: a solvent, or a mixture of two or more solvents, capable of dissolving components A, B and C, in an amount of from 0.5 to 50000 % by weight related to the total weight of components A, B and C,

optionally component E: at least one surfactant; and

optionally component F: superfine ceramic particles;

wherein said composition contains at least 75% by weight of component A based on the total weight of components A, B, and C.

47. (New): A polymerizable amine mixture consisting of:
75 to 99.5 % by weight of component A,
0 to 25 % by weight of component B, and
0 to 10 % by weight of component C,
wherein the weight percentages are based on the total weight of components A, B, and C, and component A is at least one organic amine derivative, which is capable of forming a

crosslinked polymer with itself and/or with at least one multifunctional compound, wherein said at least one organic amine derivative comprises two or more identical or different groups of the subformula I



wherein

R^{a} is H, $-[(\text{CR}'\text{R}'')_{\text{v}}-\text{CO}]_{\text{r}}\text{R}'''$, $-[(\text{CR}'\text{R}'')_{\text{v}}-\text{O}-]_{\text{r}}\text{R}'''$ or $-(\text{CR}'\text{R}'')_{\text{v}}-\text{NHZ}$,

R' , R'' , R''' are independently of each other H, an alkyl group with 1 to 12 C-atoms which may be substituted by halogen, or an alkenyl group with 2 to 12 C-atoms which may be substituted by halogen,

Z is H or a protective group,

v is 0 or greater or equal to 1, and

r is greater or equal to 1, wherein when v is 0, then r is 1;

component B is at least one multifunctional organic compound with at least two functional groups selected from -OH, -NH₂, -COOH, and their reactive derivatives, capable of reacting with said at least one organic amine derivative of component A to form a crosslinked polymer; and

component C is at least one initiator for the polymerization of component A or components A and B.

48. (New): An electronic device according to claim 1, wherein said dielectric layer has a resistivity greater than or equal to $10^{+10} \Omega\text{cm}$.

49. (New): An electronic device according to claim 1, wherein said dielectric layer

has a resistivity greater than or equal to 10^{+11} Ωcm .